ASSESSING AND DESCRIBING TOLERANCE FOR AMBIGUITY IN THE CONTEXT OF SCHOOL LEADERSHIP

Lawrence T. Kajs, University of Houston-Clear Lake
Daniel L. McCollum, University of Maryland University College

ABSTRACT

While the areas of business and medicine have developed the study of tolerance for ambiguity (TFA), there has been little empirical research on the TFA construct as applied to the field of educational administration, e.g., principals. Research has found that one's tolerance for ambiguity can influence style of leadership and decision-making. This research work examines the TFA construct in the field of educational administration through the extensive study of a large number of current and prospective principals using the Norton (1975) MAT-50 as a survey instrument. This instrument is considered a valid and reliable scale for measuring TFA. Results of this study provide findings that address characteristics of people with high and low TFA levels.

INTRODUCTION

Research has found that a person's tolerance for ambiguity (i.e., how one tends to respond to uncertain circumstances) can affect a person's behavior and in turn influence style of leadership and decision-making (e.g., Kajs & McCollum, 2009). Topics surrounding tolerance for ambiguity (TFA) and intolerance for ambiguity (INTFA) can be found in organizational and social behavioral research (e.g., Bennett et al., 1990; Budner, 1962; Clampitt & Williams, n.d.), business studies (e.g., Bakalis & Joiner, 2004; Lamberton et al., 2005; Lane & Klenke, 2004), and medical literature (e.g., Geller et al., 1993; Schor et al., 2000; Sherrill, 2005).

While the literature notes the importance of understanding how tolerance for ambiguity affects school leaders' performances (e.g., Patterson, 2001; Williams, 2006), there is limited empirical research on TFA's influence on school administrators' dispositions and their consequential behaviors and decision-making (Kajs & McCollum, 2009). Since the appropriateness of school leaders' decisions can have a major impact on campus life, the disposition and preparedness of school leadership is vital. With the increased occurrences of ambiguity within society (Visser, 2003), educators need to have a better appreciation and understanding how the tolerance for ambiguity construct impacts the domain of educational administration. This is especially relevant for school district administrators and higher education professors who work to prepare and develop aspiring and practicing school leaders.

TOLERANCE FOR AMBIGUITY: DEFINED AND DESCRIBED

Ambiguity can take place when there is vagueness of words, as well as uncertainty and incompleteness of information and structure, where situations can have many interpretations, sometimes contradictory (Norton, 1975; Visser, 2003). Budner (1962) has pointed out that three key explanations result in situational ambiguity including the newness of circumstances (the lack of recognizable signals); the complexity of conditions requiring several prompts for consideration; and the insolvability of the circumstance because of varying, on occasion contradictory, cues in reaching a solution.

The way an individual interacts (i.e., the procedures of perceiving, interpreting, and reacting) with ambiguous circumstances works to determine one's tolerance for ambiguity (TFA) levels (Stoycheva, 2002; 2003). Because of these multiple variables (e.g., perceptions) and other factors (e.g., predictability and variability of situations), the TFA construct is complex (Benjamin et al., 1996). For example, someone with a high TFA will tend to observe an ambiguous situation as desirable (Budner, 1962); and approach it in a manner that is practical and adaptive, displaying risk taking as well as resiliency in developing alternative responses and solutions to the conditions (DeRoma et al., 2003; Patterson, 2001; Stoyvecha, 2003; Visser, 2003). On the other hand, an individual who has a high intolerance for ambiguity (INTFA) will have the tendency to interpret an ambiguous situation as threatening (Budner, 1962); and approach it in a concrete, stereotype manner, demonstrating discomfort and anxiousness; with the possibility of avoiding the event entirely (Geller et al., 1993; Stoycheva, 2003). Grenier et al. (2005) indicate that while the research literature tends to associate intolerance for ambiguity with intolerance for uncertainty, difference can be made between these two notions; that is, intolerance for ambiguity relates to current conditions as a source of threat, while intolerance for uncertainty makes reference to the future outlook of a negative outcome.

PURPOSE OF THIS STUDY

This paper advances the research of the TFA construct in its understanding and application to current and future school leaders, e.g., campus principals. This paper examines the TFA construct in the field of educational administration through the study of 333 current and prospective principals, surveyed with the Norton (1975) MAT-50 instrument, considered a valid and reliable scale for measuring TFA (e.g., Benjamin et al., 1996). Data analysis includes descriptive statistics of each item and subscale, and the overall scale, as well as reliability coefficients (Cronbach's Alpha). Additionally, correlations among TFA, grade point average (GPA), teaching experience and school administrator experience are provided. Lastly, t-tests comparing the lowest and highest TFA scorers are used to compare teaching experience, school leader experience, and GPA.

RESULTS

Using Norton's (1975) criteria in the definition of low and high TFA groups, study participants with low tolerance for ambiguity (TFA) were statistically significantly older than participants with high TFA. Participants who had low TFA were marginally statistically

significantly more experienced as teachers than those with high TFA. Moreover, participants with low TFA were marginally statistically significantly more experienced as school administrators in comparison to those with high TFA. Lastly, no statistically significant difference between TFA groups on the grade point average (GPA) measure took place. Overall, a higher level of TFA appears with those who are younger and less professionally experienced participants.

CONCLUSIONS

This empirical study resulted in higher levels of TFA being found among younger and less experienced professionals, suggesting that as an individual get older and/or acquires more professional experience the levels of tolerance for ambiguity decreases. This would imply that younger, less experienced professionals will be more ambiguity tolerant; consequently, more open to various alternatives when solving dilemmas (e.g., DeRoma et al., 2003; Patterson, 2001; Stoyvecha, 2003). Moreover, higher TFA levels indicate that these individuals are likely to deal better with vague language, partial information, as well as activities or assignments with little structure, and multiple views in problem solving (Norton, 1975; Visser (2003). These particular results, where TFA decreases with age, are opposed to previous findings in which TFA did not differ based on age (Clampitt & Williams, 2005). There are possible alternative explanations for study results. One could be that older professionals (having more experience) will tend to view situations as less ambiguous. A second explanation could be related to older professionals' resistance to cognitive dissonance, so as to reduce the prospect of dealing with uncomfortable tensions. A final explanation could be the relationship between age and resistance to change because of the uncertainty (i.e., ambiguity) change brings.

REFERENCES

Bakalis, S., & Joiner, T. A. (2004). Participation in tertiary study abroad programs: The role of personality. *International Journal of Educational Management, 18*(5), 286-291.

Benjamin, A. J., Jr., Riggio, R. E., & Mayes, B. T. (1996). Reliability and factor structure of Budner's tolerance for ambiguity scale. *Journal of Social Behavior & Personality, 11*(3), 625-632.

Bennett, N., Herold, D. M., & Ashford, S. J. (1990). The effect of tolerance for ambiguity on feedback-seeking behaviour. *Journal of Occupational Psychology, 63,* 343-348.

Budner, S. (1962). Intolerance of ambiguity as a personality variable. *Journal of Personality, 30*(1), 29-50.

Clampitt, P., & Williams, M. L. (n.d.). *Managing organizational uncertainty: Conceptualization and measurement.* Retrieved from http://www.imetacomm.com/otherpubs/research/manorguncertain.pdf

Clampitt, P., & Williams, M. L. (2005). Conceptualizing and measuring how employees and organizations manage uncertainty. *Communication Research Reports, 22*(4), 315-324.

DeRoma, V. M., Martin, K. M., & Kessler, M. L. (2003). The relationship between tolerance for ambiguity and need for course structure. *Journal of Instructional Psychology, 30*(2), 104-109.

Geller, G., Tambor, E. S., Chase, G. A., & Holtzman, N. A. (1993). Measuring physicians' tolerance for ambiguity and its relationship to their reported practices regarding genetic testing. *Medical Care, 31*(11), 989-1001.

Grenier, S., Barrette, A., & Ladouceur, R. (2005). Intolerance of uncertainty and intolerance of ambiguity: Similarities and differences. *Personality and Individual Differences, 39*(3), 593-600.

Kajs, L. T., & McCollum, D. L. (2009). Examining tolerance for ambiguity in the domain of educational leadership. *Academy of Educational Leadership Journal (AELJ), 13*(2), 1-16.

Lamberton, B., Fedorowicz, J., & Roohani, S. J. (2005). Tolerance for ambiguity and IT competency among accountants. *Journal of Information Systems, 19*(1), 75-95.

Lane, M. S., & Klenke, K. (2004). The ambiguity tolerance interface: A modified social cognitive model for leading under uncertainty. *Journal of Leadership & Organizational Studies, 10*(3), 69-81.

Norton, R. W. (1975). Measurement of ambiguity tolerance. *Journal of Personality Assessment, 39*(6) 607-619.

Patterson, J. (2001). Resilience in the face of adversity. *The School Administrator, 58*(6), 18-24.

Schor, R., Pilpel, D., & Benbassat, J. (2000). Tolerance of uncertainty of medical students and practicing physicians. *Medical Care, 38*(3), 272-280.

Sherrill, W. W. (2005). Tolerance of ambiguity among MD/MBA students: Implications for management potential. *Journal of Continuing Education in the Health Professions, 21*(2), 117-122.

Stoycheva, K. (2002). Ambiguity tolerance and creativity in adolescents. In M. I. Stein (Ed.) *Creativity's Global Correspondents—2002* (pp. 34-38). Retrieved from http://www.amcreativityassoc.org/ACA%20Press/Global%20Correspondents/Global_2002.pdf

Stoycheva, K. (2003). Talent, science and education: How do we cope with uncertainty and ambiguities? In: P. Csermely and L. Lederman (Eds.), *Science Education: Talent Recruitment and Public Understanding* (pp. 31-43), NATO Science Series, vol. V/38. Amsterdam: IOS Press.

Visser, Y. L. (2003). Ambiguity in learning: Issues and implications for instructional design. Paper presented at the International Conference of the Association for Educational Communications and Technology, Anaheim, CA, October 22-25, 2003. Retrieved from http://www.learndev.org/ambiguity.html

Williams, R. B. (2006). Leadership for school reform: Do principal decision-making reflect a collaborative approach? Canadian Journal of Educational Administration and Policy, 53, 1-7.